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* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	OCT 02	CA/CAPLUS enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	3	OCT 19	BEILSTEIN updated with new compounds
NEWS	4	NOV 15	Derwent Indian patent publication number format enhanced
NEWS	5	NOV 19	WPIX enhanced with XML display format
NEWS	6	NOV 30	ICSD reloaded with enhancements
NEWS	7	DEC 04	LINPADOCDB now available on STN
NEWS	8	DEC 14	BEILSTEIN pricing structure to change
NEWS	9	DEC 17	USPATOLD added to additional database clusters
NEWS	10	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS	11	DEC 17	DGENE now includes more than 10 million sequences
NEWS	12	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS	13	DEC 17	MEDLINE and LMEDELINE updated with 2008 MeSH vocabulary
NEWS	14	DEC 17	CA/CAPLUS enhanced with new custom IPC display formats
NEWS	15	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS	16	JAN 02	STN pricing information for 2008 now available
NEWS	17	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	18	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	19	JAN 28	MARPAT searching enhanced
NEWS	20	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	21	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	22	JAN 28	MEDLINE and LMEDELINE reloaded with enhancements
NEWS	23	FEB 08	STN Express, Version 8.3, now available
NEWS	24	FEB 20	PCI now available as a replacement to DPCI
NEWS	25	FEB 25	IFIREF reloaded with enhancements
NEWS	26	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	27	FEB 29	WPIINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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***** STN Columbus *****

FILE 'HOME' ENTERED AT 07:27:09 ON 14 MAR 2008

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

2.52	2.52
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FILE 'REGISTRY' ENTERED AT 07:34:29 ON 14 MAR 2008

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 MAR 2008 HIGHEST RN 1007849-81-1

DICTIONARY FILE UPDATES: 13 MAR 2008 HIGHEST RN 1007849-81-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

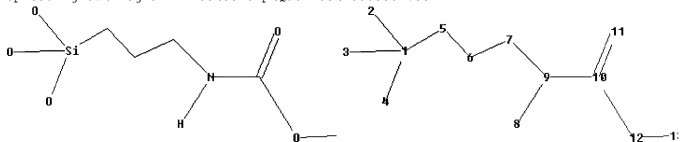
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\155ester.str



chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13

chain bonds :

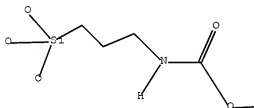
1-2 1-3 1-4 1-5 5-6 6-7 7-9 8-9 9-10 10-11 10-12 12-13

exact/norm bonds :
7-9 9-10 10-11 10-12 12-13
exact bonds :
1-2 1-3 1-4 1-5 5-6 6-7 8-9

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

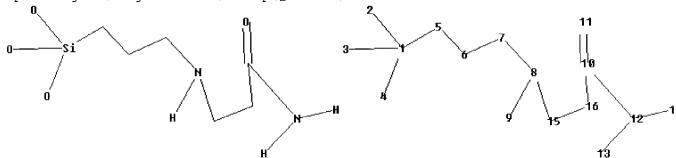
=> s l1
SAMPLE SEARCH INITIATED 07:34:58 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 115 TO ITERATE

100.0% PROCESSED 115 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1657 TO 2943
PROJECTED ANSWERS: 640 TO 1520

L2 50 SEA SSS SAM L1

=>
Uploading C:\Program Files\Stnexp\Queries\155amide.str



```

chain nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16
chain bonds :
1-2  1-3  1-4  1-5  5-6  6-7  7-8  8-9  8-15  10-12  10-11  10-16  12-13  12-14
15-16
exact/norm bonds :
7-8  8-15  10-12  10-11
exact bonds :
1-2  1-3  1-4  1-5  5-6  6-7  8-9  10-16  12-13  12-14  15-16

```

```

Match level :
1:CLASS  2:CLASS  3:CLASS  4:CLASS  5:CLASS  6:CLASS  7:CLASS  8:CLASS  9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

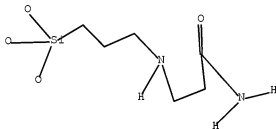
```

L3 STRUCTURE UPLOADED

```

=> d l3
L3 HAS NO ANSWERS
L3                    STR

```



Structure attributes must be viewed using STN Express query preparation.

```

=> s l3
SAMPLE SEARCH INITIATED 07:35:36 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -            11 TO ITERATE

100.0% PROCESSED            11 ITERATIONS            0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:    ONLINE    **COMPLETE**
                         BATCH    **COMPLETE**
PROJECTED ITERATIONS:       22 TO       418
PROJECTED ANSWERS:         0 TO       0

```

L4 0 SEA SSS SAM L3

```

=> s l3 full
FULL SEARCH INITIATED 07:35:52 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -            256 TO ITERATE

```

100.0% PROCESSED 256 ITERATIONS 5 ANSWERS

SEARCH TIME: 00.00.01

L5 5 SEA SSS FUL L3

=> FIL HCAPLUS USPATFULL BIOSIS MEDLINE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	179.28	181.80

FILE 'HCAPLUS' ENTERED AT 07:36:02 ON 14 MAR 2008
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'USPATFULL' ENTERED AT 07:36:02 ON 14 MAR 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 07:36:02 ON 14 MAR 2008
Copyright (c) 2008 The Thomson Corporation

FILE 'MEDLINE' ENTERED AT 07:36:02 ON 14 MAR 2008

=> s l5

L6 7 L5

=> dup rem l6

PROCESSING COMPLETED FOR L6

L7 7 DUP REM L6 (0 DUPLICATES REMOVED)

=> d l7 1-7 ibib abs hitstr

L7 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1319723 HCAPLUS Full-text

DOCUMENT NUMBER: 144:219440

TITLE: Preparation and evaluation of novel stationary phases
for improved chromatographic purification of
pneumocandin B0

AUTHOR(S): Welch, Christopher J.; DaSilva, Jimmy O.; Nti-Gyabaah,
Joseph; Antia, Firoz; Goklen, Kent; Boyd, Russell

CORPORATE SOURCE: Merck Research Laboratories, Merck & Co. Inc., Rahway,
NJ, 07065, USA

SOURCE: Journal of Chromatography, A (2006), 1101(1-2),
204-213

CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Prepn. and evaluation of a no. of stationary phases for improved chromatog.
purification of pneumocandin B0, a key intermediate in the synthesis of the
antifungal agent, Cancidas, has led to the identification of several materials
with potential for improved performance.

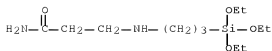
IT 18388-80-2

RL: AMX (Analytical matrix); ANST (Analytical study)

(preparation and evaluation of novel stationary phases for improved
chromatog. purification of pneumocandin B0)

RN 18388-80-2 HCAPLUS

CN Propanamide, 3-[[3-(triethoxysilyl)propyl]amino]- (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2003:332278 USPATFULL Full-text
 TITLE: Inorganic-organic hybrid gels for extracting species such as lanthanides and actinides, and their preparation

INVENTOR(S): Meyer, Daniel, St Genier de Comolas, FRANCE
 Conocar, Olivier, Angles, FRANCE
 Moreau, Joel, Montpellier, FRANCE
 Wong Chi Man, Michel, Vendargues, FRANCE

PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique and Compagnie Generale des Matieres Nucleaires, Velizy Villascoubay, FRANCE (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6667016	B1	20031223
	WO 9921654		19990506
APPLICATION INFO.:	US 2000-530133		20001006 (9)
	WO 1998-FR9902309		19981028

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1997-13565	19971029
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Bos, Steven	
LEGAL REPRESENTATIVE:	Burns, Doane, Swecker & Mathis, L.L.P.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	1111	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Inorganic-organic hybrid gels can be employed to extract chemical species such as lanthanides and actinides and their preparation.

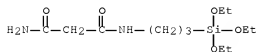
The gels include a network of inorganic components with the formula:
 ##STR1##

where M is Si, Ti, Zr or Al, wherein organic molecules which can complex the species to be extracted are integrated, with each organic molecule being covalently linked to one or several M atoms in the network. The network is made by a sol-gel process from metallic alkoxides functionalized with complexing groups (amino, ether, hydroxy, amido, pyridino and bipyridino), capable of extracting metals such as lanthanides and actinides.

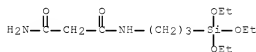
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 223476-23-1DP, hydrolysis-condensation products with

tetraethoxysilane
 (inorg.-organic functionalized hybrid gels for extraction of lanthanides
 and
 actinides)
 RN 223476-23-1 USPATFULL
 CN Propanediamide, N-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



IT 223476-23-1
 (inorg.-organic functionalized hybrid gels for extraction of lanthanides
 and
 actinides)
 RN 223476-23-1 USPATFULL
 CN Propanediamide, N-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2001:354297 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 135:108228
 TITLE: Hybrid silica based materials as new solid phase
 extractants
 AUTHOR(S): Bourg, Stephane; Broudic, Jean-Charles; Conocar,
 Olivier; Moreau, Joel J. E.; Meyer, Daniel; Man,
 Michel Wong Chi
 CORPORATE SOURCE: DCC/DRRV/SPHA, CEA Valrho, DCC/DRRV/SPHA, Bagnols sur
 Ceze, 30207, Fr.
 SOURCE: Materials Research Society Symposium Proceedings
 (2001), 628(Organic/Inorganic Hybrid Materials),
 CC1.6.1-CC1.6.11
 CODEN: MRSPDH; ISSN: 0272-9172
 PUBLISHER: Materials Research Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Org.-inorg. hybrids exhibiting specific properties are easily prep'd. by
 incorporation of organic fragments in an inorg. network. Increasing attention
 is being paid to hybrid silsesquioxane gels, which are prepared by sol-gel
 hydrolysis condensation of organic mols. containing two or more trialkoxysilyl
 substituents. These hybrids consist of a mixed three-dimensional network,
 where the organic fragment, crosslinking siloxane chains, is part of the
 framework. Owing to the presence of a strong Si-C bond between the organic
 and the inorg. fragments, highly stable hybrid network are produced in this
 way. A variety of materials can be produced according to the intrinsic
 properties of the organic. We report here the preparation of hybrid materials
 with complexing properties upon hydrolysis-condensation of ligands

functionalized by Si(OR)3 groups. New hybrid silica based materials containing malonamide ligands have been prepared by sol-gel hydrolysis condensation of functionalized precursors and have been used as solid phase extractants for the complexation of actinides. This approach is quite different from the classical immobilization procedure of complexing agents. The sol-gel approach allows one to adjust the ligand loading and to achieve some control and some tuning of the ligand environment since the oxide matrix is built around the complexing moieties. These hybrids proved to be highly efficient extracting solids.

IT 349649-16-7P

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(extractants; hybrid silica based materials as new solid phase extractants)

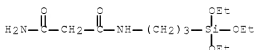
RN 349649-16-7 HCAPLUS

CN Silicic acid (H4SiO4), tetraethyl ester, polymer with N-[3-(triethoxysilyl)propyl]propanediamide (9CI) (CA INDEX NAME)

CM 1

CRN 223476-23-1

CMF C12 H26 N2 O5 Si



CM 2

CRN 78-10-4

CMF C8 H20 O4 Si



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 1999:297351 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 130:298824

TITLE: Inorganic-organic hybrid gels for extracting species such as lanthanides and actinides from aqueous solutions, and their preparation

INVENTOR(S): Meyer, Daniel; Conocar, Olivier; Moreau, Joel; Wong Chi Man, Michel

PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique, Fr.; Compagnie Generale des Matieres Nucleaires

SOURCE: PCT Int. Appl., 86 pp.

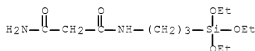
DOCUMENT TYPE: CODEN: PIXXD2
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: French
 PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9921654	A1	19990506	WO 1998-FR2309	19981028
W: GB, JP, KR, RU, UA, US				
FR 2770153	A1	19990430	FR 1997-13565	19971029
FR 2770153	B1	19991119		
GB 2349347	A	20001101	GB 2000-9736	19981028
GB 2349347	B	20011114		
JP 2001520932	T	20011106	JP 2000-517801	19981028
RU 2207190	C2	20030627	RU 2000-113194	19981028
US 6667016	B1	20031223	US 2000-530133	20001006
PRIORITY APPLN. INFO.:			FR 1997-13565	A 19971029
			WO 1998-FR2309	W 19981028
			WO 1999-FR2309	W 19981028

AB Inorg.-org. hybrid gels are described for extg. species such as lanthanides and actinides from aqueous solns. The gels comprise a system of inorg. units of formula =M-O- in which M is Si, Ti, Zr or Al, which are integrated mols. complexing the species to be extracted, each organic mol. being covalently bound to one or several M atoms of the system. The gels are prepared by sol-gel processing (i.e. hydrolysis and catalytic polycondensation) of metal alkoxides functionalized with complexing groups (amino, ether, hydroxy, amido, pyridino and bipyridino), capable of extracting metals such as lanthanides and actinides. In examples, an NH₄F catalyst in EtOH/H₂O was used for hydrolysis and polycondensation of functionalized silicon alkoxides with tetraethoxysilane. One silicon alkoxide was 4-[2-(triethoxysilyl)ethyl]pyridine.

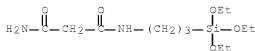
IT 223476-23-1DE, hydrolysis-condensation products with tetraethoxysilane
 RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (inorg.-organic functionalized hybrid gels for extraction of lanthanides and actinides)

RN 223476-23-1 HCAPLUS
 CN Propanediamide, N-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



IT 223476-23-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (inorg.-organic functionalized hybrid gels for extraction of lanthanides and actinides)

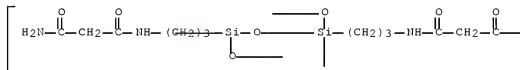
RN 223476-23-1 HCAPLUS
 CN Propanediamide, N-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:645493 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:36584
 TITLE: New hybrid silica based materials for the solid-liquid extraction of actinides
 AUTHOR(S): Broudic, Jean-Charles; Conocar, Olivier; Moreau, Joel J. E.; Meyer, Daniel; Wong Chi Man, Michel
 CORPORATE SOURCE: DCC/DRRV/SPHA, CEA-Valrho, Bagnols sur Ceze, 30207, Fr.
 SOURCE: Journal of Materials Chemistry (1999), 9(10), 2283-2285
 CODEN: JMACEP; ISSN: 0959-9428
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB New hybrid silica-based materials contg. malonamide ligands were prep'd. by sol-gel hydrolysis condensation of functionalized precursors. Extraction properties of solid hybrids were tested for aqueous nitric acid solns. of Pu(IV) and Am (III). These hybrids proved to be highly efficient extracting solids which compare favorably to related silica materials.
 IT 252337-31-8P 252337-34-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (hybrid silica based materials for the solid-liquid extraction of actinides)
 RN 252337-31-8 HCAPLUS
 CN Poly[[1,3-bis[3-[(3-amino-1,3-dioxopropyl)amino]propyl]-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)

PAGE 1-A



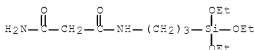
PAGE 1-B



RN 252337-34-1 HCAPLUS
CN Propanediamide, N-[3-(triethoxysilyl)propyl]-, homopolymer (9CI) (CA INDEX NAME)

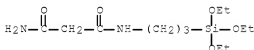
CM 1

CRN 223476-23-1
CMF C12 H26 N2 O5 Si



IT 223476-23-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hybrid silica-based materials for the solid-liquid extraction of actinides)

RN 223476-23-1 HCAPLUS
CN Propanediamide, N-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



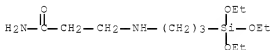
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2008 ACS ON STN
ACCESSION NUMBER: 1962:469378 HCAPLUS Full-text
DOCUMENT NUMBER: 57:69378
ORIGINAL REFERENCE NO.: 57:13804f-i
TITLE: Aminoalkylsilicon compounds
INVENTOR(S): Pike, Ronald M.; Morehouse, Edward L.
PATENT ASSIGNEE(S): Union Carbide Corp.
SOURCE: 11 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 3033815		19620508	US 1959-836623	19590828
PRIORITY APPLN. INFO.:			US	19590828
AB	Aminoalkylsilicon compds. of the formula (I) $\text{H}_2\text{NCaH}_2\text{a-SiRbY}_3\text{-b}$ (a = at least 3, b = 0 to 2, Y = alkoxy radicals, R = alkyl or aryl) react with BHC: $\text{CR}'\text{X}(\text{II})$ (B = hydrogen, alkyl or aryl; R' = hydrogen or alkyl; X = nitrile or COD, wherein D is hydrogen, alkyl, aryl, alkoxy, or amino) forming organosilicon compds. having at least one group of the formula $\text{XCHR}'\text{CHBNHCaH}_2\text{aSiRbY}_3\text{-b}$ and $\text{XCHR}'\text{CHB}(\text{CH}_2)_2\text{NCaH}_2\text{aSiRbY}_3\text{-b}$. To 75 g.y-aminopropyltriethoxysilane was added 29.2 g. Me acrylate and the mixture was			

heated under constant stirring at 80°/2 mm. Distillation of the product 61.4 g. γ -(N-2-carbomethoxyethyl)aminopropyltriethoxysilane (III), b0..33-0.38 109-11°, n_{25D} 1.4308, and 3.6 g. γ -N,N-bis(2-carbomethoxyethyl)aminopropyltriethoxysilane, b0.0,-0.9 145-67°, n_{25D} 1.4388, besides two unidentified fractions b0.55-0.38 55-104° and b0.33-0.30 130-140°. Hydrolysis of 32 g. III with 18 g. H₂O and 15 ml. concentrated HCl at 33°, with a stream of argon passing through the solution, yielded after evaporation of the liquid products (2 hrs. at 100°/1-5 mm.) 24.7 g. γ -(N-2-carbomethoxyethyl)aminopropylpolysiloxane, a white, resinous product. I may also be an aminoalkylsiloxane polymer or a siloxane copolymer containing the unit H₂NCaH₂SiRbO(3-b)/2, forming with II (XCHR'CHB)2NCaH₂SiRbO(3-b)/2 and XCHR'CHBNHCH₂SiRbO(3-b)/2. The products are useful as sizes for fibrous materials, particularly fibrous glass materials, and as adhesives and flocculation agents.

IT 16388-80-2F, Propionamide, 3-[[3-(triethoxysilyl)propyl]amino]-
 RL: PREP (Preparation)
 (preparation of)
 RN 16388-80-2 HCAPLUS
 CN Propanamide, 3-[[3-(triethoxysilyl)propyl]amino]- (CA INDEX NAME)



L7 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2008 ACS ON STN

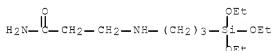
ACCESSION NUMBER: 1962:60684 HCAPLUS
 DOCUMENT NUMBER: 56:60684
 ORIGINAL REFERENCE NO.: 56:11621d-g
 TITLE: Organosilicon compounds and process for producing same
 INVENTOR(S): Pike, Ronald Marston; Morehouse, Edward L.
 PATENT ASSIGNEE(S): Union Carbide Corp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 882051		19611108	GB 1957-30940	19571003
DE 1114326			DE	
PRIORITY APPLN. INFO.:			US	19561012
			GB	19571003

AB Organosilicon compds. contg. substituted amino groups linked to the Si atom through a polymethylene linkage of at least 3 C atoms are prepared by the reaction of an aminoalkyl Si compound with an α,β -olefinically unsatd. organic compound at 80-80°. (γ -Aminopropyl)triethoxy-silane (I) (75 g.) and 29.2 g. Me acrylate were stirred together at 2 mm. to a temperature of 80°. The product was fractionally distilled. The fraction b0.33-0.38 109-11° was 61.4 g. [γ -(N-2-carbomethoxyethyl)aminopropyl]triethoxysilane, n₂₅ 1.4308. Prepared similarly was [γ -(N,N-di-2-carbomethoxy-ethyl)aminopropyl]triethoxysilane, b0.4-0.45 149-66°, n_{25D} 1.4372-1.4379. Acrylamide (89.1 g.) is added dropwise to 110.7 g. I with stirring, the mixture heated to 80° 4 hrs., distilled in vacuo until 49.5 g. was collected.

The fraction b1.52-2.5 85-192°, n25 1.4448-1.4521 was [γ-(N-2-aminoethylamino-propyl)triethoxysilane. I (442.6 g.) under argon was cooled to 5°, 213.4 g. acrylonitrile added dropwise below 30°, the mixture kept overnight, and a 327.4-g. portion distilled; the 210.6-g. fraction b0.6-0.7 127-32° was [γ-(N-2-cyanoethyl)-aminopropyl]triethoxysilane. Prepared similarly were: [δ-(N-2-cyanoethyl)aminobutyl]triethoxysilane, b0.3-0.4 128-35°, n2D5 1 4370; [δ-(N-2-cyanoethyl)butyl]methyldiethoxy silane, b0.9 115-16°, n2D5 1.4423; [δ-(N-1-phenyl-2- carbethoxyethyl)-aminobutyl]methyldiethoxysilane, b0.5152-62°, n25 1.4776.

IT 18388-80-2E, Propionamide, 3-[[3-(triethoxysilyl)propyl]amino]-
 RL: PREP (Preparation)
 (preparation of)
 RN 18388-80-2 HCAPLUS
 CN Propanamide, 3-[[3-(triethoxysilyl)propyl]amino]- (CA INDEX NAME)



=> s 17 and silica
 L8 5 L7 AND SILICA

=> d 18 ibib abs

L8 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:1319723 HCAPLUS Full-text
 DOCUMENT NUMBER: 144:219440
 TITLE: Preparation and evaluation of novel stationary phases for improved chromatographic purification of pneumocandin B0
 AUTHOR(S): Welch, Christopher J.; DaSilva, Jimmy O.; Nti-Gyabaah, Joseph; Antia, Firoz; Goklen, Kent; Boyd, Russell
 CORPORATE SOURCE: Merck Research Laboratories, Merck & Co. Inc., Rahway, NJ, 07065, USA
 SOURCE: Journal of Chromatography, A (2006), 1101(1-2), 204-213
 CODEN: JCRAEY; ISSN: 0021-9673
 PUBLISHER: Elsevier B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Prepn. and evaluation of a no. of stationary phases for improved chromatog. purification of pneumocandin B0, a key intermediate in the synthesis of the antifungal agent, Cancidas, has led to the identification of several materials with potential for improved performance.
 REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 18 1-5 ibib abs

L8 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:1319723 HCAPLUS Full-text
 DOCUMENT NUMBER: 144:219440

TITLE: Preparation and evaluation of novel stationary phases for improved chromatographic purification of pneumocandin B0

AUTHOR(S): Welch, Christopher J.; DaSilva, Jimmy O.; Nti-Gyabaah, Joseph; Antia, Firoz; Goklen, Kent; Boyd, Russell

CORPORATE SOURCE: Merck Research Laboratories, Merck & Co. Inc., Rahway, NJ, 07065, USA

SOURCE: Journal of Chromatography, A (2006), 1101(1-2), 204-213
CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Prep. and evaluation of a no. of stationary phases for improved chromatog. purification of pneumocandin B0, a key intermediate in the synthesis of the antifungal agent, Cancidas, has led to the identification of several materials with potential for improved performance.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 2001:354297 HCAPLUS Full-text

DOCUMENT NUMBER: 135:108228

TITLE: Hybrid silica based materials as new solid phase extractants

AUTHOR(S): Bourg, Stephane; Broudic, Jean-Charles; Conocar, Olivier; Moreau, Joel J. E.; Meyer, Daniel; Man, Michel Wong Chi

CORPORATE SOURCE: DCC/DRRV/SPHA, CEA Valrho, DCC/DRRV/SPHA, Bagnols sur Ceze, 30207, Fr.

SOURCE: Materials Research Society Symposium Proceedings (2001), 628(Organic/Inorganic Hybrid Materials), CC1.6.1-CC1.6.11
CODEN: MRSPDH; ISSN: 0272-9172

PUBLISHER: Materials Research Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Org.-inorg. hybrids exhibiting specific properties are easily prep. by incorporation of organic fragments in an inorg. network. Increasing attention is being paid to hybrid silsesquioxane gels, which are prepared by sol-gel hydrolysis condensation of organic mols. containing two or more trialkoxysilyl substituents. These hybrids consist of a mixed three-dimensional network, where the organic fragment, crosslinking siloxane chains, is part of the framework. Owing to the presence of a strong Si-C bond between the organic and the inorg. fragments, highly stable hybrid network are produced in this way. A variety of materials can be produced according to the intrinsic properties of the organic. We report here the preparation of hybrid materials with complexing properties upon hydrolysis-condensation of ligands functionalized by Si(OR)3 groups. New hybrid silica based materials containing malonamide ligands have been prepared by sol-gel hydrolysis condensation of functionalized precursors and have been used as solid phase extractants for the complexation of actinides. This approach is quite different from the classical immobilization procedure of complexing agents. The sol-gel approach allows one to adjust the ligand loading and to achieve some control and some tuning of the ligand environment since the oxide matrix is built around the complexing moieties. These hybrids proved to be highly efficient extracting solids.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:645493 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:36584
 TITLE: New hybrid silica based materials for the
 solid-liquid extraction of actinides
 AUTHOR(S): Broudic, Jean-Charles; Conocar, Olivier; Moreau, Joel
 J. E.; Meyer, Daniel; Wong Chi Man, Michel
 CORPORATE SOURCE: DCC/DRRV/SPHA, CEA-Valrho, Bagnols sur Ceze, 30207,
 Fr.
 SOURCE: Journal of Materials Chemistry (1999), 9(10),
 2283-2285
 CODEN: JMACEP; ISSN: 0959-9428
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB New hybrid silica-based materials contg. malonamide ligands were prepared by
 sol-gel hydrolysis condensation of functionalized precursors. Extraction
 properties of solid hybrids were tested for aqueous nitric acid solns. of
 Pu(IV) and Am (III). These hybrids proved to be highly efficient extracting
 solids which compare favorably to related silica materials.
 REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:297351 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:298824
 TITLE: Inorganic-organic hybrid gels for extracting species
 such as lanthanides and actinides from aqueous
 solutions, and their preparation
 INVENTOR(S): Meyer, Daniel; Conocar, Olivier; Moreau, Joel; Wong
 Chi Man, Michel
 PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique, Fr.; Compagnie
 Generale des Matieres Nucleaires
 SOURCE: PCT Int. Appl., 86 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9921654	A1	19990506	WO 1998-FR2309	19981028
W: GB, JP, KR, RU, UA, US				
FR 2770153	A1	19990430	FR 1997-13565	19971029
FR 2770153	B1	19991119		
GB 2349347	A	20001101	GB 2000-9736	19981028
GB 2349347	B	20011114		
JP 2001520932	T	20011106	JP 2000-517801	19981028
RU 2207190	C2	20030627	RU 2000-113194	19981028
US 6667016	B1	20031223	US 2000-530133	20001006
PRIORITY APPLN. INFO.:			FR 1997-13565	A 19971029
			WO 1998-FR2309	W 19981028
			WO 1999-FR2309	W 19981028

AB Inorg.-org. hybrid gels are described for extg. species such as lanthanides
 and actinides from aqueous solns. The gels comprise a system of inorg. units
 of formula =M-O- in which M is Si, Ti, Zr or Al, which are integrated mols.
 complexing the species to be extracted, each organic mol. being covalently
 bound to one or several M atoms of the system. The gels are prepared by sol-
 gel processing (i.e. hydrolysis and catalytic polycondensation) of metal

alkoxides functionalized with complexing groups (amino, ether, hydroxy, amido, pyridino and bipyridino), capable of extracting metals such as lanthanides and actinides. In examples, an NH_4F catalyst in $\text{EtOH}/\text{H}_2\text{O}$ was used for hydrolysis and polycondensation of functionalized silicon alkoxides with tetraethoxysilane. One silicon alkoxide was 4-[2-(triethoxysilyl)ethyl]pyridine.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:332278 USPATFULL Full-text

TITLE: Inorganic-organic hybrid gels for extracting species such as lanthanides and actinides, and their preparation

INVENTOR(S): Meyer, Daniel, St Genier de Comolas, FRANCE

Conocar, Olivier, Angles, FRANCE

Moreau, Joel, Montpellier, FRANCE

Wong Chi Man, Michel, Vendargues, FRANCE

PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique and Compagnie

Generale des Matieres Nucleaires, Velizy Villascoubay,

FRANCE (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6667016	B1	20031223
	WO 9921654		19990506
APPLICATION INFO.:	US 2000-530133		20001006 (9)
	WO 1998-FR9902309		19981028

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1997-13565	19971029
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Bos, Steven	
LEGAL REPRESENTATIVE:	Burns, Doane, Swecker & Mathis, L.L.P.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	1111	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Inorganic-organic hybrid gels can be employed to extract chemical species such as lanthanides and actinides and their preparation.

The gels include a network of inorganic components with the formula:
##STR1##

where M is Si, Ti, Zr or Al, wherein organic molecules which can complex the species to be extracted are integrated, with each organic molecule being covalently linked to one or several M atoms in the network. The network is made by a sol-gel process from metallic alkoxides functionalized with complexing groups (amino, ether, hydroxy, amido, pyridino and bipyridino), capable of extracting metals such as lanthanides and actinides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

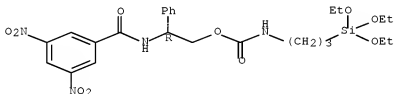
=> s l2 and silica
L9 24 L2 AND SILICA

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 24 DUP REM L9 (0 DUPLICATES REMOVED)

=> d l10 1-24 ibib abs hitstr

L10 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:849797 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 147:486116
TITLE: Resolution of three important π -basic chiral
compounds on recently developed five π -acidic
chiral columns
AUTHOR(S): Ryoo, Jae Jeong; Park, Joo-Bo; Kwon, Hae Young; Lee,
Jung Whan
CORPORATE SOURCE: Department of Chemistry Education, Kyungpook National
University, Taegu, 702-701, S. Korea
SOURCE: Bulletin of the Korean Chemical Society (2007), 28(6),
1042-1044
CODEN: BKCSDE; ISSN: 0253-2964
PUBLISHER: Korean Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three important chiral compds., 1,1'-bi-2-naphthol (BNO), 1,1'-binaphthyl-
2,2'-diamine (BNA), 2,2,2-trifluoro-1-(9-anthryl)ethanol (TFAE), were used for
testing the five Pirkle-type π -acidic chiral stationary phases. The
resolution results were compared to those of com. available chiral columns.
In comparison of the enantiosepn. results of BNA and TF AE on the five CSPs and
known com. columns, the chiral separation on a phenylglycine CSP showed the
best resolution This phase could be useful in a large-scale separation of
these three important chiral compds.
IT 445385-80-80, silica-bound
RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or
chemical process); ANST (Analytical study); PROC (Process)
(resolution of π -basic chiral compds. on recently developed π -acidic
chiral columns)
RN 445385-80-8 HCAPLUS
CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, (2R)-2-[(3,5-
dinitrobenzoyl)amino]-2-phenylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:699661 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 145:211498

TITLE: Nonlinear optical polymer based on hydroxy dye/inorganic composite and its preparation by sol-gel method

INVENTOR(S): Xi, Hongxia; Li, Zhong; Xia, Qibin; Liang, Zhaoxi

PATENT ASSIGNEE(S): South China University of Technology, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

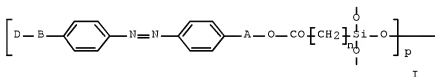
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1800239	A	20060712	CN 2005-10101677	20051130

PRIORITY APPLN. INFO.: CN 2005-10101677 20051130

GI



AB The title nonlinear optical polymer based on hydroxy dye/inorg. composite has a structure I, wherein A is $-\text{CnH}_{2n}-$, or $-\text{NR}-\text{CnH}_{2n}-$; B is $-\text{CN}$, $-\text{NO}_2$, $-\text{CF}_3$, $-\text{SO}_2\text{R}$, $-\text{R}$, $-\text{CH}=\text{CH}-$, $-\text{N}=\text{N}-$, $-\text{CH}=\text{N}-\text{N}=\text{CH}-$, or $-\text{CH}=\text{N}-$; when B is $-\text{CN}$, $-\text{NO}_2$, $-\text{CF}_3$, $-\text{SO}_2\text{R}$, or $-\text{R}$, D is absent; and when B is $-\text{CH}=\text{CH}-$, $-\text{N}=\text{N}-$, $-\text{CH}=\text{N}-\text{N}=\text{CH}-$, or $-\text{CH}=\text{N}-$, D is $-\text{H}$, $-\text{CN}$, $-\text{NO}_2$, $-\text{CF}_3$, $-\text{SO}_2\text{R}$, $-\text{R}$, substituted or unsubstituted aromatic ring, condensed aromatic ring, heterocycle, or condensed aromatic heterocycle; R is C_1-C_9 alkyl; n and m are integers of 1-9, and P is a natural number. The preparation comprises mixing an organic solvent (such as n-hexane) 10-20 mL, a hydroxy-containing dye monomer 0.1 mol, an organosilane containing isocyanate (such as γ -isocyanatopropyltriethoxysilane) 0.1-0.15 mol, and triethylamine catalyst 0.3-0.5 mL, refluxing at 50-200°C for 12-24 h in N_2 atmosphere, and precipitating with anhydrous n-hexane to obtain solid powder of alkoxysilane dye containing hydroxy dye; mixing Et orthosilicate, prepared alkoxysilane dye, water, and ethanol at a molar ratio of 1:(0.8-1.5):(6-8):(4.5-5.5), adding dropwise 1 mol/L HNO_3 under stirring to make the reactant mixture hydrolyze, sealing, stirring, and aging to obtain silica sol containing hydroxy chromophores. The polymer has good high temperature stability and easy film-forming, and can be used in the fields of phototelegraphy, photoelectronics, and optical information processing, etc.

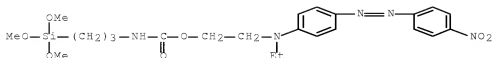
IT 575129-70-1F

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation of nonlinear optical polymer based on hydroxy dye/inorg. composite by sol-gel method)

RN 675129-70-1 HCAPLUS

CN Carbanic acid, [3-(trimethoxysilyl)propyl]-, 2-[ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl ester (9CI) (CA INDEX NAME)



L10 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:609442 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:219600

TITLE: Enantioseparation by sonochromatography

AUTHOR(S): Ryoo, Jae Jeong; Song, Young-Ae; Jeong, Young Han;

Hyun, Myung Ho; Park, Jung Hag; Lee, Wonjae

CORPORATE SOURCE: Dept. of Chemistry Education, Kyungpook National

University, Taegu, 702-701, S. Korea

SOURCE: Bulletin of the Korean Chemical Society (2006), 27(5), 637-641

CODEN: BKCSDE; ISSN: 0253-2964

PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:219600

AB Although chiral sepn. was one of the main topics of chromatog. practice for over twenty-five years, it still presents many difficulties. The ultrasonic dependence of chiral resolution was studied at various temps. to improve resolution and reduce anal. time. The chiral resolution was performed on recently commercialized two HPLC chiral stationary phases (CSP 1 and CSP 2) with the analogs of racemic N-acynaphthylethylamines and racemic amino acid derivs. as analytes. The CSP 1 was prepared from a (R)-N-(3,5-dinitrobenzoyl)phenylglycinol and the CSP 2 was prepared from a (S)-N-3,5-(dinitrobenzoyl) leucine. From the comparison of the chromatog. results under sonic condition with those under nonsonic condition, the ultrasound decreased the elution time in chiral chromatog. at all temps. and improved the enantioselectivity at high temperature (45, 50, 60°).

IT 445385-80-8D, reaction product with silica gel

RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified);

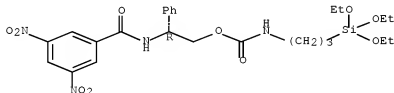
ANST (Analytical study); USES (Uses)

(chiral phase; HPLC enantiosepn. enhanced by ultrasound application)

RN 445385-80-8 HCAPLUS

CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, (2R)-2-[(3,5-dinitrobenzoyl)amino]-2-phenylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

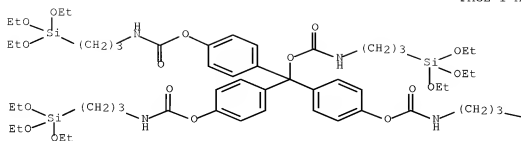
L10 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:547629 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 143:73181
 TITLE: Site selectively tagged and templated molecularly imprinted polymers for sensor applications
 INVENTOR(S): Bright, Frank V.
 PATENT ASSIGNEE(S): The Research Foundation of State University of New York, USA
 SOURCE: PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005056613	A2	20050623	WO 2004-US41560	20041208
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004297274	A1	20050623	AU 2004-297274	20041208
CA 2547418	A1	20050623	CA 2004-2547418	20041208
US 2005227258	A1	20051013	US 2004-6857	20041208
EP 1699832	A2	20060913	EP 2004-813820	20041208
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU			
JP 2007525570	T	20070906	JP 2006-544056	20041208
PRIORITY APPLN. INFO.:			US 2003-527661P	P 20031208
			WO 2004-US41560	W 20041208
AB	This invention provides molecularly imprinted polymers (MIPs) for the detection of analytes, methods for forming the MIPs and detecting the analyte using the MIPs. The MIP comprises templated sites which are formed using a mimic of the analyte such that a reporter compound can be selectively attached at the templated sites, thus providing a site selectively tagged and templated MIP.			
IT	855005-68-4P RL: ARU (Analytical role, unclassified); IMF (Industrial manufacture); ANST (Analytical study); PREP (Preparation) (xerogel; manufacture of site selectively tagged and templated molecularly imprinted polymers for sensor applications)			
RN	855005-68-4 HCAPLUS			
CN	Carbamic acid, [3-(triethoxysilyl)propyl]-, [[[[[3-(triethoxysilyl)propyl]amino]carbonyl]oxymethylidene]tri-4,1-phenylene ester, polymer with silicic acid (H4SiO4) tetraethyl ester, 2,2'-[[[3-(triethoxysilyl)propyl]imino]bis[ethanol] and trimethoxyoctylsilane (9CI) (CA INDEX NAME)			
CM	1			
CRN	855005-67-3			
CMF	C59 H100 N4 O20 Si4			

PAGE 1-A



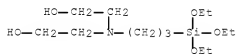
PAGE 1-B



CM 2

CRN 7538-44-5

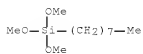
CMF C13 H31 N O5 Si



CM 3

CRN 3069-40-7

CMF C11 H26 O3 Si



CM 4

CRN 78-10-4

CMF C8 H20 O4 Si



L10 ANSWER 5 OF 24 USPATFULL on SIN

ACCESSION NUMBER: 2005:261235 USPATFULL Full-text

TITLE: Site selectively tagged and templated molecularly imprinted polymers for sensor applications

INVENTOR(S): Bright, Frank V., Williamsville, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005227258	A1	20051013
APPLICATION INFO.:	US 2004-6857	A1	20041208 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-527661P	20031208 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HODGSON RUSS LLP, ONE M & T PLAZA, SUITE 2000, BUFFALO, NY, 14203-2391, US	
NUMBER OF CLAIMS:	32	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	1099	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides molecularly imprinted polymers (MIPs) for the detection of analytes, methods for forming the MIPs and detecting the analyte using the MIPs. The MIP comprises templated sites which are formed using a mimic of the analyte such that a reporter compound can be selectively attached at the templated sites, thus providing a site selectively tagged and templated MIP.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 855905-68-4P

(xerogel; manufacture of site selectively tagged and templated molecularly imprinted polymers for sensor applications)

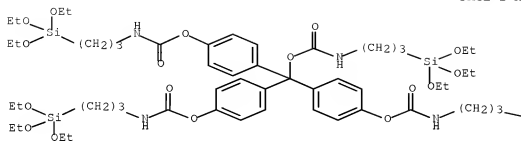
RN 855005-68-4 USPATFULL

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, [[[[[3-(triethoxysilyl)propyl]amino]carbonyl]oxy]methylidene]tri-4,1-phenylene ester, polymer with silicic acid (H4SiO4) tetraethyl ester, 2,2'-[[3-(triethoxysilyl)propyl]imino]bis[ethanol] and trimethoxyoctylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 855005-67-3
 CMF C59 H100 N4 O20 Si4

PAGE 1-A

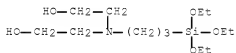


PAGE 1-B



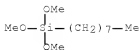
CM 2

CRN 7538-44-5
 CMF C13 H31 N O5 Si



CM 3

CRN 3069-40-7
 CMF C11 H26 O3 Si



CM 4

CRN 78-10-4

CMF C8 H20 O4 Si



L10 ANSWER 6 OF 24 USPATFULL on SIN

ACCESSION NUMBER: 2005:209747 USPATFULL Full-text
 TITLE: Coating composition using a polyester resin composition
 for forming a paint film on a substrate
 INVENTOR(S): Ramesh, Swaminathan, Canton, MI, UNITED STATES
 Green, Marvin L., Brighton, MI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005182232	A1	20050818
	US 7041777	B2	20060509
APPLICATION INFO.:	US 2004-844629	A1	20040513 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2004-777698, filed on 12 Feb 2004, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BASF CORPORATION, ANNE GERRY SABOURIN, 26701 TELEGRAPH ROAD, SOUTHFIELD, MI, 48034-2442, US		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1017		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB A coating composition for producing films having improved scratch and mar characteristics. The coating composition incorporates a polyester polycarbonate resin composition, a first cross-linking agent, and a cross-linkable resin to form the film. The resin composition is the reaction product of a first compound having a plurality of hydroxyl groups with a carbamate compound reactive with the hydroxyl groups of the first compound and added in an amount sufficient to form a carbamated intermediary. The carbamated intermediary has at least one primary carbamate group available for cross-linking and has unreacted hydroxyl groups. Then, a silyl compound having a terminal isocyanate group is reacted with the unreacted hydroxyl groups of the carbamated intermediary. The silyl compound also has silylalkoxy groups available for secondary cross-linking. The first cross-linking agent and the cross-linkable resin react with the primary carbamate groups and the silylalkoxy groups, respectively, to produce the film having improved scratch and mar characteristics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 862375-32-4P

(scratch-resistant coating composition containing polyester polycarbonate component)

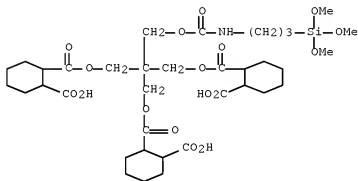
RN 862375-32-4 USPATFULL

CN 1,2-Cyclohexanedicarboxylic acid, 1,1'-[2-[[[(2-carboxycyclohexyl)carbonyl]oxy)methyl]-2-(8,8-dimethoxy-3-oxo-2,9-dioxo-4-aza-8-siladec-1-yl)-1,3-propanediyl] ester, triester with 1,2,3-propanetriol monocarbonate 1-neodecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 862375-31-3

CMF C36 H57 N O17 Si



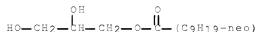
CM 2

CRN 79245-77-5

CMF C13 H26 O4

CCI IDS

CDES 8:ID,NEO



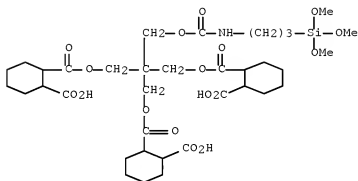
CM 3

CRN 463-77-4

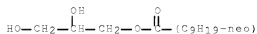
CMF C H3 N O2



IT 862375-32-4DP, reaction products with Resimene 747 and acrylic resin
 (scratch-resistant coating composition containing polyester polycarbamate component)
 RN 862375-32-4 USPATFULL
 CN 1,2-Cyclohexanedicarboxylic acid, 1,1'-[2-[[[2-carboxycyclohexyl)carbonyl]oxy]methyl]-2-(8,8-dimethoxy-3-oxo-2,9-dioxo-4-aza-8-siladec-1-yl)-1,3-propanediyl] ester, triester with 1,2,3-propanetriol monocarbamate 1-neodecanoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 862375-31-3
 CMF C36 H57 N O17 Si



CM 2
 CRN 79245-77-5
 CMF C13 H26 O4
 CCI IDS
 CDES 8:ID,NEO



CM 3
 CRN 463-77-4
 CMF C H3 N O2



ACCESSION NUMBER: 2004:796486 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:317191
 TITLE: Silica sol composition, membrane electrode assembly with proton-exchange membrane, and fuel cell
 PATENT ASSIGNEE(S): Fuji Photo Film Co. Ltd., Japan
 SOURCE: Eur. Pat. Appl., 50 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1463140	A2	20040929	EP 2004-7161	20040325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2004307814	A	20041104	JP 2003-432663	20031226
US 2004241522	A1	20041202	US 2004-807689	20040324
PRIORITY APPLN. INFO.:				
			JP 2003-82369	A 20030325
			JP 2003-82370	A 20030325
			JP 2003-432663	A 20031226

AB Provided are a proton-exchange membrane of which the ionic cond. is high and the methanol crossover is low, and a fuel cell of high power that comprises the proton-exchange membrane. The proton-exchange membrane has a structure of mesogen-containing organic mol. chains and a proton-donating group-containing group covalent-bonding to a silicon-oxygen three-dimensional crosslinked matrix, in which at least a part of the organic mol. chains are oriented to form an aggregate thereof; and the fuel cell comprises the membrane.

IT 765279-49-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

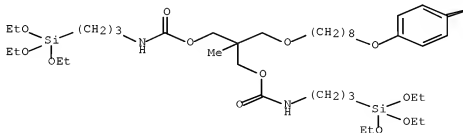
(silica sol composition, membrane electrode assembly with proton-exchange membrane, and fuel cell)

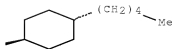
RN 765279-49-0 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 2-methyl-2-[[[8-[4-(trans-4-pentylcyclohexyl)phenoxy]octyl]oxy]methyl]-1,3-propanediyl ester (9CI)
 (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A





L10 ANSWER 8 OF 24 USPATFULL on SIN

ACCESSION NUMBER: 2004:306853 USPATFULL Full-text
 TITLE: Silica sol composition, membrane electrode assembly with proton-exchange membrane, and fuel cell
 INVENTOR(S): Ono, Michio, Minami-ashigara-shi, JAPAN
 Wariishi, Koji, Minami-ashigara-shi, JAPAN
 Nomura, Kimiatsu, Minami-ashigara-shi, JAPAN
 Kikuchi, Wataru, Minami-ashigara-shi, JAPAN
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004241522	A1	20041202
APPLICATION INFO.:	US 2004-807689	A1	20040324 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2003-82369	20030325
	JP 2003-82370	20030325
	JP 2003-432663	20031226

DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
 NUMBER OF CLAIMS: 11
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 3 Drawing Page(s)
 LINE COUNT: 1989

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided are a proton-exchange membrane of which the ionic conductivity is high and the methanol crossover is low, and a fuel cell of high power that comprises the proton-exchange membrane. The proton-exchange membrane has a structure of mesogen-containing organic molecular chains and a proton-donating group-containing group covalent-bonding to a silicon-oxygen three-dimensional crosslinked matrix, in which at least a part of the organic molecular chains are oriented to form an aggregate thereof; and the fuel cell comprises the membrane.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

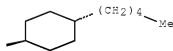
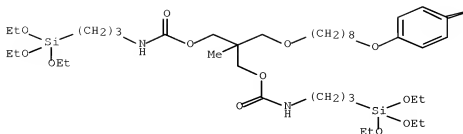
IT 765279-49-0P

(silica sol composition, membrane electrode assembly with proton-exchange membrane, and fuel cell)

RN 765279-49-0 USPATFULL

CN Carbanic acid, [3-(triethoxysilyl)propyl]-, 2-methyl-2-[[[4-(trans-4-pentylcyclohexyl)phenoxy]octyl]oxy]methyl]-1,3-propanediyl ester (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



L10 ANSWER 9 OF 24 USPATFULL on SIN

ACCESSION NUMBER: 2004:13532 USPATFULL Full-text

TITLE: Dental fillers, pastes, and compositions prepared therefrom

INVENTOR(S): Bui, Hoa T., Mendota Heights, MN, UNITED STATES

Kolb, Brant U., Afton, MN, UNITED STATES

Mitra, Sumita B., West St. Paul, MN, UNITED STATES

PATENT ASSIGNEE(S): 3M Innovative Properties Company, St. Paul, MN, UNITED STATES, 55133-3427 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004010055	A1	20040115
	US 7091259	B2	20060815
APPLICATION INFO.:	US 2002-190321	A1	20020703 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	3M INNOVATIVE PROPERTIES COMPANY, PO BOX 33427, ST. PAUL, MN, 55133-3427		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1328		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a dental paste, methods of making and using the dental paste, and compositions prepared therefrom. The dental paste includes a hardenable resin and an acid-reactive filler disposed in the resin. The acid-reactive filler includes a silane-treated surface, wherein the silane includes a poly(alkylene oxide) group-containing silane. Surface-treated acid-reactive fillers, and methods of making and using the fillers, are also provided.

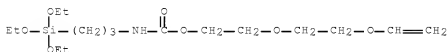
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 643016-02-4P 643/31-8i-1P

(dental fillers and pastes containing silane-treated surfaces)

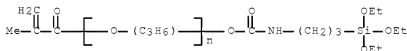
RN 643018-02-4 USPATFULL

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 2-[2-(ethenyloxy)ethoxy]ethyl ester (9CI) (CA INDEX NAME)



RN 643731-81-1 USPATFULL

CN Poly[oxy(methyl-1,2-ethanediyl)], α -(2-methyl-1-oxo-2-propenyl)-
o-[[[3-(triethoxysilyl)propyl]amino]carbonyloxy]- (9CI) (CA
INDEX NAME)



L10 ANSWER 10 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2003:306367 USPATFULL Full-text

TITLE: Method for immobilizing oligonucleotides employing the
cycloaddition bioconjugation method

INVENTOR(S): Pieken, Wolfgang, Boulder, CO, UNITED STATES
Wolter, Andreas, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Sebesta, David P., Longmont, CO, UNITED STATES
Leuck, Michael, Boulder, CO, UNITED STATES
Latham-Timmons, Hallie A., Boulder, CO, UNITED STATES
Pilon, John, Ft. Collins, CO, UNITED STATES
Husar, Gregory M., Longmont, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003215801	A1	20031120
APPLICATION INFO.:	US 2001-845742	A1	20010501 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-341337, filed on 8 Jul 1999, PENDING A 371 of International Ser. No. WO 1998-US649, filed on 8 Jan 1998, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-201561P	20000501 (60)
	US 2001-265020P	20010130 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SWANSON & BRATSCHUN L.L.C., 1745 SHEA CENTER DRIVE, SUITE 330, HIGHLANDS RANCH, CO, 80129	
NUMBER OF CLAIMS:	22	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	12 Drawing Page(s)	
LINE COUNT:	2144	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB This invention discloses a novel method for immobilizing molecules to a support. Specifically, this invention discloses a method of immobilizing derivatized biomolecules, such as oligonucleotides, using cycloaddition reactions, such as the Diels-Alder reaction. Included in this invention are the novel immobilized biomolecules that can be prepared according to the method of this invention.

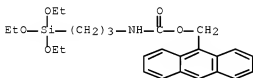
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 372108-00-4P

(method for immobilizing oligonucleotides employing the Diels Alder cycloaddn. bio-conjugation method)

RN 372108-00-4 USPATFULL

CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, 9-anthracenylmethyl ester (CA INDEX NAME)



L10 ANSWER 11 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2003:266159 USPATFULL [Full-text](#)

TITLE: Oxazolidine compound and curable resin composition

INVENTOR(S): Suga, Kazuo, Kanagawa, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003187176	A1	20031002
	US 6812315	B2	20041102
APPLICATION INFO.:	US 2003-377793	A1	20030304 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2002-71835	20020315
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	RADER FISHMAN & GRAUER PLLC, LION BUILDING, 1233 20TH STREET N.W., SUITE 501, WASHINGTON, DC, 20036	
NUMBER OF CLAIMS:	2	
EXEMPLARY CLAIM:	1	
LINE COUNT:	790	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is an oxazolidine compound represented by the following formula (1). ##STR1##

[R.sup.1 represents a hydrocarbon group having 1 to 6 carbon atoms; R.sup.2 and R.sup.3 independently represent a hydrogen atom or a monovalent hydrocarbon group having 1 to 15 carbon atoms, or R.sup.2 and R.sup.3 combine to form an alicyclic ring or an aromatic ring; R.sup.4 and R.sup.5 independently represent a methyl group or an ethyl group; R.sup.6 represents a single bond or --(R.sup.7--NHC(=O)--R.sup.8-- OCONH).sub.p--, R.sup.7 and R.sup.8 independently represent a divalent organic group, and p represents an integer of 1 to 15; m represents 2 or 3; n represents an integer of 1 to

3]. A curable resin composition using the oxazolidine compound as a latent curing agent have excellent curability and excellent storage stability, in particular, excellent storage stability in a state where the resin composition contains only the curable ingredient(s) and the latent curing agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 602325-94-0P

(silyl oxazolidines as latent hardeners for curable resin compns.)

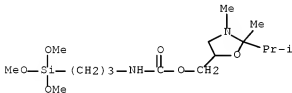
RN 602325-94-0 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, [2,3-dimethyl-2-(1-methylethyl)-5-oxazolidinyl]methyl ester, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 602325-92-8

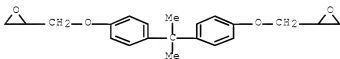
CMF C16 H34 N2 O6 Si



CM 2

CRN 1675-54-3

CMF C21 H24 O4



L10 ANSWER 12 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2003:74442 USPATFULL Full-text

TITLE: Powder coating or adhesives employing silanes or silane treated fillers

INVENTOR(S): Katz, Lawrence E., Orange, CT, United States
Petty, Herbert E., Bethel, CT, United States
Su, Shiu-Chin Huang, Croton-on-Hudson, NY, United States
Waldman, Bruce A., Peekskill, NY, United States

PATENT ASSIGNEE(S): Barbera, Bruce C., Beacon, NY, United States
Crompton Corporation, Middlebury, CT, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6534568	B1	20030318
	WO 995754		19991104
APPLICATION INFO.:	US 2000-446609		20000419 (9)
	WO 1999-US8694		19990421
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-65911, filed on 24 Apr 1998, now abandoned Continuation-in-part of Ser. No. US 1998-115791, filed on 15 Jul 1998, now abandoned Continuation-in-part of Ser. No. US 1998-157658, filed on 21 Sep 1998, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Dawson, Robert		
ASSISTANT EXAMINER:	Robertson, Jeffrey B.		
LEGAL REPRESENTATIVE:	Dilworth, Michael P.		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	1158		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB Powder coating or adhesive formulations include as a component thereof a silane of formula (I) or hydrolyzates or condensates thereof ##STR1##

where R.sup.1 is a hydrocarbon, acyl, alkylsilyl, or alkoxysilyl group, R.sup.2 is a monovalent hydrocarbon group; R.sup.3 is alkylene, optionally interrupted with one or more ether oxygen atoms; a is 0 or 1; Z is a direct bond or a divalent linking group; X is an m-valent organic group or H; and m is 1-20. The silanes are useful as crosslinkers, property modifiers and/or adhesion promoters. Powder adhesives may be similarly formed with the silanes of formula (I). Fillers or pigments, such as titanium dioxide fillers, which are treated with silanes, especially silanes having alkyl, epoxy, acryl, methacryl, polyether, amino, acid anhydride, hydroxyalkyl, carbamate or ureido functionality, may also be usefully employed in powder coating formulations.

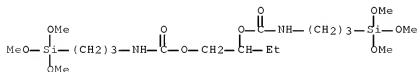
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 501925-94-6P 501925-95-7P

(carbamate silane-treated fillers)

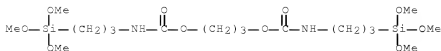
RN 501925-94-6 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, 1-ethyl-1,2-ethanediyl ester (9CI) (CA INDEX NAME)



RN 501925-95-7 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, 1,3-propanediyl ester (9CI) (CA INDEX NAME)



L10 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:476005 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 139:277384

TITLE: New fully polymeric proton solvents with high proton mobility

AUTHOR(S): Herz, H. G.; Kreuer, K. D.; Maier, J.; Scharfenberger, G.; Schuster, M. F. H.; Meyer, W. H.

CORPORATE SOURCE: Max-Planck-Institut für Festkörperforschung, Stuttgart, D-70569, Germany

SOURCE: Electrochimica Acta (2003), 48(14-16), 2165-2171

CODEN: ELCAAV; ISSN: 0013-4686

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

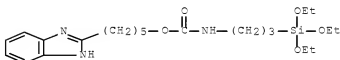
AB The prepn. and characterization of fully polymeric-bound heterocycles as proton solvents is presented. Two different types of polymers are prepared: Polystyrene with imidazole terminated flexible side chains and benzimidazole covalently bonded to an inorg. SiO₂ network by a flexible spacer. High proton conductivities of up to 7·10⁻⁴ S cm⁻¹ at 200 °C have been obtained for these polymers in the absence of water. The presence of protonic charge carriers (protonated and deprotonated heterocycles) is a result of self-dissociation and the proton conductance is suggested to occur via intermol. proton transfer and structural reorganization within a dynamical hydrogen bond network formed by the aggregation of the terminating heterocycles.

IT 605658-12-6P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent) (fully polymeric proton solvents with high proton mobility on base of benzimidazole derivs. covalently bonded to SiO₂)

RN 605658-12-6 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 5-(1H-benzimidazol-2-yl)pentyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:93943 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 139:110787

TITLE: Enantioseparation of racemic N-acylarylalkylamines on various amino alcohol derived π-acidic chiral stationary phases

AUTHOR(S): Ryoo, Jae Jeong; Kim, Tae Hyuk; Im, Sung Hyun; Jeong, Young Han; Park, Ji Yeon; Choi, Seong-Ho; Lee, Kwang-Pill; Park, Jung Hag

CORPORATE SOURCE: Graduate School, Department of Chemistry, Kyungpook National University, Buk-Ku, Taegu, 702-701, S. Korea

SOURCE: Journal of Chromatography, A (2003), 987(1-2), 429-438
CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

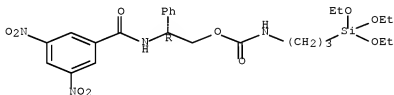
AB Five π -acidic chiral stationary phases (CSPs), CSP 4, CSP 5, CSP 6, CSP 7 and CSP 8, were prepared by connecting the N-(3,5-dimethylbenzoyl) derivative of (R)-alaninol, (S)-leucinol, (1S,2R)-ephedrine and (S)-tert-leucinol and the O-(3,5-dinitrobenzoyl) derivative of (R)-phenylglycinol to silica gel through a carbamate or urea linkage. The CSPs were applied to the resolution of various racemic N-acyl-1-naphthylaminoalkanes by chiral HPLC, and the chromatog. resolution results were compared with those of previously reported CSPs (CSP 2, CSP 3), which are derived from N-(3,5-dinitrobenzoyl)-(1S,2R)-norephedrine and N-(3,5-dinitrobenzoyl)-(R)-phenylglycinol. Based on a comparison of the resolution results for each CSP, the role of each functional group on the five chiral selectors is explained.

IT 445385-80-9DP, reaction product with silica gel
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(chiral stationary phase; enantiosepn. of racemic N-acylarylalkylamines on various amino alc. derived π -acidic chiral stationary phases)

RN 445385-80-8 HCAPLUS

CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, (2R)-2-[(3,5-dinitrobenzoyl)amino]-2-phenylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:93905 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 139:110784

TITLE: Comparison of monomeric and polymeric chiral stationary phases

AUTHOR(S): Lee, Kwang-Pill; Choi, Seong-Ho; Kim, Soo-Yeon; Kim, Tae-Hyuk; Ryoo, Jae Jeong; Ohta, Kazutoku; Jin, Ji-Ye; Takeuchi, Toyohide; Fujimoto, Chuza

CORPORATE SOURCE: Department of Chemistry Graduate School, Kyungpook National University, Taegu, 702-701, S. Korea

SOURCE: Journal of Chromatography, A (2003), 987(1-2), 111-118
CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

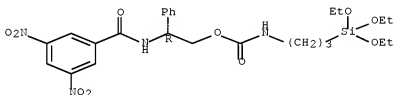
AB Two-type polymeric chiral stationary phases (pCSPs) were prep'd. by surface grafting of chiral acryl-type monomers on a silica gel surface modified with 3-(trimethoxysilyl)propylmethacrylate. The prepared pCSPs were characterized by IR, FT-Raman, SEM, and elemental anal. Two-type monomeric chiral stationary phases (mCSPs) were also prepared. The racemic analytes were separated using the prepared mCSPs and pCSPs. The separation factor (α) and capacity factor (k_1) of the racemic analytes for the pCSP and mCSP were compared. The α and k_1 values of the mCSP were higher than those of the pCSP.

IT 445385-80-8DP, reaction product with silica gel
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(monomeric chiral stationary phase; preparation and comparison of monomeric and polymeric chiral stationary phases for HPLC)

RN 445385-80-8 HCAPLUS

CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, (2R)-2-[(3,5-dinitrobenzoyl)amino]-2-phenylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

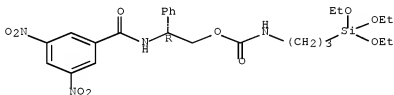


IT 445385-80-8P
RL: ARU (Analytical role, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)
(preparation and comparison of monomeric and polymeric chiral stationary phases for HPLC)

RN 445385-80-8 HCAPLUS

CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, (2R)-2-[(3,5-dinitrobenzoyl)amino]-2-phenylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 16 OF 24 USPATFULL ON STN
ACCESSION NUMBER: 2002:95848 USPATFULL [Full-text](#)
TITLE: Amorphous silica having discrete voids and spatially organized functionalities formed therein
INVENTOR(S): Katz, Alexander, Flagstaff, AZ, United States

PATENT ASSIGNEE(S): Davis, Mark E., Pasadena, CA, United States
California Institute of Technology, Pasadena, CA,
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6380266	B1	20020430
APPLICATION INFO.:	US 1998-96991		19980612 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-49615P	19970613 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Lovering, Richard D.	
LEGAL REPRESENTATIVE:	Pillsbury Winthrop LLP	
NUMBER OF CLAIMS:	40	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 14 Drawing Page(s)	
LINE COUNT:	1316	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

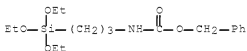
AB The present invention relates to amorphous inorganic materials having pores of controlled size and shape with one or more spatially organized functional groups formed therein. Much like the active site residues in an enzyme, these functional groups can be positioned in a defined three dimensional relationship within the voids and with respect to each other. By varying both the positions and identities of these functional groups, diverse sets of substrate specific adsorbents and non-biologically-based catalysts can be made.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 218155-73-8D, reaction products with silica
(one-point imprint structure, silica-supported; preparation and properties of silica gel and silica with voids containing spatially organized organic functionalities)

RN 218155-73-8 USPTAFULL

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



L10 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:331556 HCAPLUS Full-text

DOCUMENT NUMBER: 137:162940

TITLE: Dendritic polymers as bonded stationary phases in capillary electrochromatography

AUTHOR(S): Chao, Helen C.; Hanson, James E.

CORPORATE SOURCE: Johnson and Johnson Pharmaceutical Research and Development, LLC, Raritan, NJ, 08869, USA

SOURCE: Journal of Separation Science (2002), 25(5/6), 345-350
CODEN: JSSCCJ; ISSN: 1615-9306

PUBLISHER: Wiley-VCH Verlag GmbH

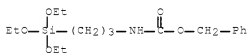
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Dendrimers are an interesting new class of polymers. Their unusual chem. and phys. properties have great potential in many applications. Polyamidoamine starburst dendrimers (PAMAM-SBDs) showed promising results as a pseudostationary phase in Micellar Electrokinetic Capillary Chromatog. (MECC). However, few chromatog. applications were explored using dendrimers. The objective of the authors' study is to explore the potential of using poly(aryl ether) monodendrons as a bonded stationary phase in open tubular Capillary Electrochromatog. (CEC). Organic materials were bonded to the interior of silica capillaries through a triethoxy-(3-isocyanatopropyl)silane linker. Bonded materials included G0, G1, and G2 poly(aryl ether) monodendrons and C18 alkyl chains. The bonded materials tended to reduce the EOF, and showed promise in a number of test sepns., including neutral aromatic hydrocarbons and basic proteins. This method shows promise for the development of new CEC methods for separation science.

IT 218155-73-8
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified);
ANST (Analytical study); USES (Uses)
(coating material; dendritic polymers as bonded stationary phases in capillary electrochromatog.)

RN 218155-73-8 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:322688 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 137:162939

TITLE: NMR studies of chiral discrimination relevant to the enantioseparation of N-acylarylalkylamines by an (R)-phenylglycinol-derived chiral selector

AUTHOR(S): Im, Sung Hyun; Ryoo, Jae Jeong; Lee, Kwang-Pill; Choi, Seong-Ho; Jeong, Young Han; Jung, Young Sik; Hyun, Myung Ho

CORPORATE SOURCE: Analytical Laboratory, R and D Institute, LG Household and Health Care, Taejon, S. Korea

SOURCE: Chirality (2002), 14(4), 329-333

CODEN: CHRLEP; ISSN: 0899-0042

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal

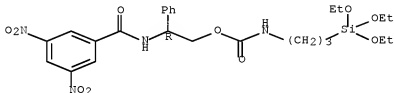
LANGUAGE: English

AB Recently, it is reported that the chiral recognition ability of (R)-N-3,5-dinitrobenzoyl phenylglycinol derivative was examined as a new HPLC chiral stationary phase (CSP 1) for the resolution of racemic N-acylnaphthylalkylamines. However, the mechanism of chiral discrimination on the CSP remained elusive until now. A spectroscopic study of the chiral discrimination mechanism of CSP 1 was undertaken using mixts. of (R)-N-3,5-dinitrobenzoyl phenylglycinol-derived chiral selector (2) and each of the enantiomers of N-acylnaphthylalkylamines (3) by NMR study. First, the

differences in free energy changes ($\Delta\Delta G$) upon diastereomeric complexation in solution between the complex of each isomer with chiral selector 2 by NMR titration were calculated. The values were then compared with those estimated by chiral HPLC. The chemical shift changes of each proton on the chiral selector and analytes were also checked and the chemical shift changes decreased continuously as the acyl group on analytes increased in length. This observation was consistent with the HPLC data. From these exptl. results, the interaction mechanism of chiral discrimination between the chiral selector and the analytes is more precisely explained.

IT 445385-80-8DE, reaction product with silica gel
 RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified);
 SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation);
 USES (Uses)
 (NMR studies of chiral discrimination relevant to the enantiosepn. of
 N-acylarylalkylamines by an (R)-phenylglycinol-derived chiral selector)
 RN 445385-80-8 HCAPLUS
 CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, (2R)-2-[(3,5-dinitrobenzoyl)amino]-2-phenylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:566169 HCAPLUS Full-text

DOCUMENT NUMBER: 133:305115

TITLE: Dendrimers as stationary phases in capillary electrochromatography

AUTHOR(S): Chao, Helen; Hanson, James E.

CORPORATE SOURCE: Department of Chemistry, Seton Hall University, South Orange, NJ, 07079, USA

SOURCE: Polymeric Materials Science and Engineering (2000), 83, 438-439

CODEN: PMSEDG; ISSN: 0743-0515

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study is focused on open tubular capillary electrochromatog. (OT-CEC) in which a stationary phase is bonded inside a capillary tube by a covalent bond. The first generation (G1) and second generation (G2) of alc. focused poly(aryl ether) monodendrons were used. A method to chemical bond the dendritic polymers to the inner wall of fused silica capillary columns was developed with 3-(triethoxysilyl)propyl isocyanate as anchoring agent. Carbamates from four different alcs. were studied as bonded stationary phases in OT-CEC: (1) G1 alc., (2) G2 alc., (3) stearyl alc. (C18 linear), and (4) 4-hydroxymethyl pyridine. Model sepn. of different analytes were examined over a range of pH values and a variety of buffer electrolytes. It is the authors' hypothesis that the permanent silanol modification should provide better control of EOF

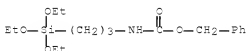
and prevent undesired analyte-wall interactions arising from electrostatic attractions.

IT 218155-73-8

RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(dendrimers as stationary phases in capillary electrochromatog.)

RN 218155-73-8 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:76414 HCAPLUS Full-text

DOCUMENT NUMBER: 132:222568

TITLE: Molecular imprinting of bulk, microporous silica

AUTHOR(S): Katz, Alexander; Davis, Mark E.

CORPORATE SOURCE: Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SOURCE: Nature (London) (2000), 403(6767), 286-289
CODEN: NATUAS; ISSN: 0028-0836

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

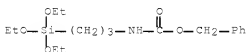
AB Mol. imprinting aims to create solid materials contg. chem. functionalities that are spatially organized by covalent or noncovalent interactions with imprint (or template) mols. during the synthesis process. Subsequent removal of the imprint mols. leaves behind designed sites for the recognition of small mols., making the material ideally suited for applications such as seps., chemical sensing and catalysis. Until now, the mol. imprinting of bulk polymers and polymer and SiO2 surfaces was reported, but the extension of these methods to a wider range of materials remains problematic. For example, the formation of substrate-specific cavities within bulk SiO2, while conceptually straightforward, was difficult to accomplish exptl. Here the authors describe the imprinting of bulk amorphous silicas with single aromatic rings carrying up to three 3-aminopropyltriethoxysilane side groups; this generates and occupies microporosity and attaches functional organic groups to the pore walls in a controlled fashion. The triethoxysilane part of the mols. side groups is incorporated into the SiO2 framework during sol-gel synthesis, and subsequent removal of the aromatic core creates a cavity with spatially organized aminopropyl groups covalently anchored to the pore walls. The imprinted silicas act as shape-selective base catalysts. Strategy can be extended to imprint other functional groups, which should give access to a wide range of functionalized materials.

IT 218155-73-8P 261165-60-0P

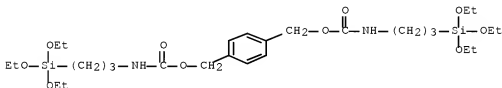
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(sol-gel polymerization of tetraethoxysilane using; mol. imprinting of bulk, microporous silica)

RN 218155-73-8 HCAPLUS
 CN Carbamic acid, [3-(triethoxysilyl)propyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



RN 261165-60-0 HCAPLUS
 CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 1,4-phenylenebis(methylene) ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:7889 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 130:68593

TITLE: Preparation and properties of silica gel and silica with voids containing spatially organized organic functionalities

INVENTOR(S): Katz, Alexander; Davis, Mark E.

PATENT ASSIGNEE(S): California Institute of Technology, USA

SOURCE: PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

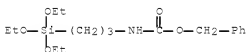
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9856498	A1	19981217	WO 1998-US12352	19980612
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9879656	A	19981230	AU 1998-79656	19980612
US 6380266	B1	20020430	US 1998-96991	19980612
PRIORITY APPLN. INFO.:				
			US 1997-49615P	P 19970613
			WO 1998-US12352	W 19980612

AB Porous silica gel and amorphous silica having voids containing spatially organized organic functionalities were prepared such that the organic functionalities were located in similar positions in each void and are homogeneously distributed. The organic functionalities are bound covalently to the available Si sites by a number of functional groups and can contain a number of functional groups themselves, including transition metal complexes, metal ions, etc. These functional groups can be positioned in a defined three-dimensional relationship within the voids and with respect to each other, possibly even to selectively position a chiral mol. imprinting structure within the void. By varying both the positions and identities of these functional groups, potentially diverse sets of substrate-specific adsorbents and non-biol.-based catalysts can be made.

IT 218155-73-8D, reaction products with silica
 RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
 (one-point imprint structure, silica-supported; preparation and properties of silica gel and silica with voids containing spatially organized organic functionalities)

RN 218155-73-8 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:45539 HCAPLUS Full-text

DOCUMENT NUMBER: 128:186151

TITLE: Thermal stability of NLO sol-gel networks with reactive chromophores

AUTHOR(S): Sung, Po-Hou; Hsu, Tien-Fong

CORPORATE SOURCE: Department of Chemistry, Fu-Jen Catholic University, Taipei, Taiwan

SOURCE: Polymer (1998), 39(6-7), 1453-1459

CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Transparent SiO₂ films with org. chromophores as side chain, main chain or crosslinking agent were prepared by the sol-gel process. The resulting films heated at 100-120° under high corona field exhibited d₃₃ = 16-29 pm V⁻¹ in Maker-fringe measurement. The crosslinking type chromophore exhibited optimum poling orientation stability.

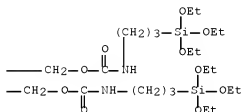
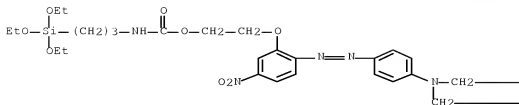
IT 203209-89-6

RL: PRP (Properties)

(thermal stability of NLO sol-gel networks with reactive chromophores)

RN 203209-89-6 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, [[4-[[2-[(9,9-diethoxy-4-oxo-3,10-dioxo-5-aza-9-siladodec-1-yl)oxy]-4-nitrophenyl]azo]phenyl]imino]di-2,1-ethanediy l ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 23 OF 24 USPATFULL on STN
 ACCESSION NUMBER: 97:38570 USPATFULL [Full-text](#)
 TITLE: Ultraviolet absorber and coating material
 INVENTOR(S): Suga, Masanobu, Yokohama, Japan
 Asano, Tsuyoshi, Yokohama, Japan
 Kuroda, Nobuyuki, Yokohama, Japan
 PATENT ASSIGNEE(S): Nippon Oil Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5627227		19970506
APPLICATION INFO.:	US 1996-609558		19960301 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-52992	19950313
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hoke, Veronica P.	
LEGAL REPRESENTATIVE:	Darby & Darby	
NUMBER OF CLAIMS:	19	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	661	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An ultraviolet absorber contains as an effective component a compound represented by the formula: ##STR1## wherein R.sup.1 denotes a hydrogen atom, a halogen atom or an alkyl group having 1 to 10 carbon atoms, R.sup.2 denotes a hydrogen atom or an alkyl group having 1 to 10 carbon atoms, R.sup.3 and R.sup.4 denote the same or different groups and denote an alkylene group having 1 to 10 carbon atoms, R.sup.5 to R.sup.9 denote the

same or different groups and denote an alkyl group having 1 to 10 carbon atoms, an alkoxy group having 1 to 10 carbon atoms, and an aryl group having 6 to 10 carbon atoms, a hydroxyl group or a hydrogen atom, X denotes an amido bond (CONH), a urethane bond (OCONH) or an ester bond (COO), and n is an integer of $n \geq 0$. A coating material contains the ultraviolet absorber.

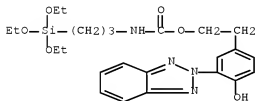
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 182806-37-7P

(UV absorber and coating material)

RN 182806-37-7 USPATFULL

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl ester (9CI) (CA INDEX NAME)



L10 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:65979 HCAPLUS Full-text

DOCUMENT NUMBER: 120:65979

TITLE: Manufacture of photochromic hybrid silica gels

INVENTOR(S): Matsuda, Reiko; Yamaguchi, Masao; Okamoto, Hidenori

PATENT ASSIGNEE(S): Tokuyama Soda Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05202190	A	19930810	JP 1992-12394	19920127
JP 3187907	B2	20010716		

PRIORITY APPLN. INFO.: JP 1992-12394 19920127

AB Photochromic silica gels are manufd. by (A) the reaction of alkoxysilanes $\text{Si}(\text{OR})_4$ (I: $\text{R} = \text{H}$, alkyl) or $\text{R}_2\text{nSi}(\text{OR})_{4-n}$ (II: $\text{R}_2 = \text{alkyl}$, alkenyl, Ph; $\text{R}_3 = \text{H}$, alkyl; $n = 1, 2$) with alkoxysilyl group-containing photochromic compds. and treating the resulting silica gels with $\text{M}(\text{OR})_n$ (III: $\text{R} = \text{H}$, alkyl; $\text{M} = \text{alkali metal}$, alkaline earth metal; $n = \text{valence of metal}$) or (B) the reaction of I or II with the photochromic compds. in the presence of III. Acid strength in the silica gels is controlled and hence the photochromic characteristics are improved.

IT 152238-73-8

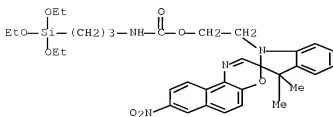
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with alkoxysilanes, photochromic silica gels from)

RN 152238-73-8 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 2-(3,3-dimethyl-8'-

nitrospiro[2H-indole-2,3'-[3H]naphth[2,1-b][1,4]oxazin-1(3H)-yl]ethyl
ester (9CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS

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TOTAL

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SESSION

FULL ESTIMATED COST

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

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DICTIONARY FILE UPDATES: 13 MAR 2008 HIGHEST RN 1007849-81-1

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

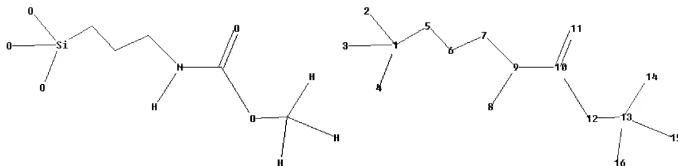
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conducting SmartSELECT searches.

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predicted properties as well as tags indicating availability of
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on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

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chain nodes :
 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16
chain bonds :
1-2 1-3 1-4 1-5 5-6 6-7 7-9 8-9 9-10 10-11 10-12 12-13 13-14 13-15
13-16
exact/norm bonds :
7-9 9-10 10-11 10-12 12-13
exact bonds :
1-2 1-3 1-4 1-5 5-6 6-7 8-9 13-14 13-15 13-16

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```

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

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L11 STRUCTURE UPLOADED

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=> s l11
SAMPLE SEARCH INITIATED 07:42:02 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 115 TO ITERATE

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```

100.0% PROCESSED 115 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

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```

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                        BATCH **COMPLETE**
PROJECTED ITERATIONS: 1657 TO 2943
PROJECTED ANSWERS: 0 TO 0

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L12 0 SEA SSS SAM L11

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=> s l11 full
FULL SEARCH INITIATED 07:42:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2077 TO ITERATE

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100.0% PROCESSED 2077 ITERATIONS 11 ANSWERS
SEARCH TIME: 00.00.01

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L13 11 SEA SSS FUL L11

=> FIL HCAPLUS USPATFULL BIOSIS MEDLINE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	178.36	573.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-20.80

FILE 'HCAPLUS' ENTERED AT 07:42:15 ON 14 MAR 2008
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FILE 'BIOSIS' ENTERED AT 07:42:15 ON 14 MAR 2008
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FILE 'MEDLINE' ENTERED AT 07:42:15 ON 14 MAR 2008

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=> s l13
L14          53 L13

=> s l14 and silica
L15          7 L14 AND SILICA

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16          7 DUP REM L15 (0 DUPLICATES REMOVED)
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=> d l16 1-7 ibib abs hitstr
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L16 ANSWER 1 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2006:289411 USPATFULL Full-text
 TITLE: Polymers with urea groups and silyl groups and
 production and use thereof
 INVENTOR(S): Bachon, Thomas, Duesseldorf, GERMANY, FEDERAL REPUBLIC
 OF
 Huebner, Wilfried, Langenfeld, GERMANY, FEDERAL
 REPUBLIC OF
 Kluth, Hermann, Duesseldorf, GERMANY, FEDERAL REPUBLIC
 OF
 Klauk, Wolfgang, Meerbusch, GERMANY, FEDERAL REPUBLIC
 OF
 Klein, Johann, Duesseldorf, GERMANY, FEDERAL REPUBLIC
 OF
 PATENT ASSIGNEE(S): Henkel Kommanditgesellschaft Auf Aktien (Henkel KGAA)
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006247407	A1	20061102
APPLICATION INFO.:	US 2006-360073	A1	20060223 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-415185, filed on 25 Apr 2003, GRANTED, Pat. No. US 7057001 A 371 of International Ser. No. WO 2001-EP12291, filed on 24 Oct 2001		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2000-10053545	20001027
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	

LEGAL REPRESENTATIVE: WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR,
 PHILADELPHIA, PA, 19103, US
 NUMBER OF CLAIMS: 20
 EXEMPLARY CLAIM: 1
 LINE COUNT: 1473
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for the production of compounds which contain at least one urea group and at least one silyl group. The process involves reacting a compound containing at least one amino group and a carbamate compound. The compounds produced by this process are useful as surface coating compositions, foams, and adhesives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 23432-62-4DP, polymers with dimer acid polyamides

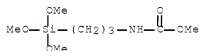
419572-67-1P 419572-68-2P 419572-69-3P

420088-12-6P

(production and use of polymers with urea and silyl groups)

RN 23432-62-4 USPATFULL

CN Carbamic acid, N-[3-(trimethoxysilyl)propyl]-, methyl ester (CA INDEX NAME)



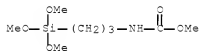
RN 419572-67-1 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with 1-octanamine (9CI) (CA INDEX NAME)

CM 1

CRN 23432-62-4

CMF C8 H19 N O5 Si



CM 2

CRN 111-86-4

CMF C8 H19 N



RN 419572-68-2 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ω -(2-aminomethylethoxy)poly[oxy(methyl-1,2-ethanediyl)]] (9CI) (CA INDEX NAME)

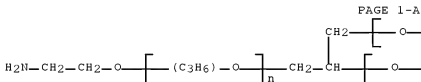
CM 1

CRN 64852-22-8

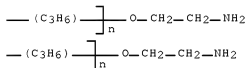
CMF (C3 H6 O)n (C3 H6 O)n C12 H29 N3 O3

CCI IDS, PMS

CDES *



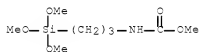
3 (D1-Me)



CM 2

CRN 23432-62-4

CMF C8 H19 N O5 Si



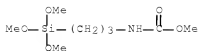
RN 419572-69-3 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with α -(2-aminomethylethyl)- ω -(2-aminomethylethoxy)poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 23432-62-4

CMF C8 H19 N O5 Si



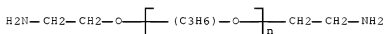
CM 2

CRN 9046-10-0

CMF (C3 H6 O)_n C6 H16 N2 O

CCI IDS, PMS

CDES *



2 (D1-Me)

RN 420088-12-6 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with
Macromelt TPX 22-405 (9CI) (CA INDEX NAME)

CM 1

CRN 420088-11-5

CMF Unspecified

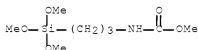
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

CM 2

CRN 23432-62-4

CMF C8 H19 N O5 Si



L16 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1319723 HCAPLUS [Full-text](#)

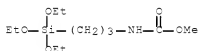
DOCUMENT NUMBER: 144:219440

TITLE: Preparation and evaluation of novel stationary phases
for improved chromatographic purification of
pneumocandin B0

AUTHOR(S): Welch, Christopher J.; DaSilva, Jimmy O.; Nti-Gyabaah,
Joseph; Antia, Firoz; Goklen, Kent; Boyd, Russell

CORPORATE SOURCE: Merck Research Laboratories, Merck & Co. Inc., Rahway,

SOURCE: NJ, 07065, USA
 Journal of Chromatography, A (2006), 1101(1-2),
 204-213
 CODEN: JCRAEY; ISSN: 0021-9673
 PUBLISHER: Elsevier B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Prepn. and evaluation of a no. of stationary phases for improved chromatog.
 purification of pneumocandin B0, a key intermediate in the synthesis of the
 antifungal agent, Cancidas, has led to the identification of several materials
 with potential for improved performance.
 IT 26411-01-8
 RL: AMX (Analytical matrix); ANST (Analytical study)
 (preparation and evaluation of novel stationary phases for improved
 chromatog. purification of pneumocandin B0)
 RN 26411-01-8 HCAPLUS
 CN Carbamic acid, N-[3-(triethoxysilyl)propyl]-, methyl ester (CA INDEX
 NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:540471 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:78642
 TITLE: Method for producing isocyanate-organosilanes in
 presence of fluidized solid particles
 INVENTOR(S): Ruedinger, Christoph; Eberle, Hans-Juergen
 PATENT ASSIGNEE(S): Consortium fuer Elektrochemische Industrie G.m.b.H.,
 Germany
 SOURCE: PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005055974	A2	20050623	WO 2004-EP13722	20041202
WO 2005055974	A3	20050728		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

DE 10358064 A1 20050714 DE 2003-10358064 20031211
 EP 1692147 A2 20060823 EP 2004-803459 20041202
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
 CN 1839140 A 20060927 CN 2004-80024229 20041202
 JP 2007534642 T 20071129 JP 2006-543438 20041202
 US 2007149797 A1 20070628 US 2006-595173 20060317
 PRIORITY APPLN. INFO.: DE 2003-10358064 A 20031211
 WO 2004-EP13722 W 20041202

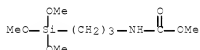
AB The invention relates to a method for producing isocyanate-organosilanes by thermolysis of carbamate-organosilanes in the presence of solid fluidized particles which may included catalysts. Thus, γ -isocyanatopropyltrimethoxysilane prepared by heterogeneous-catalyzed thermolysis of methylcarbamatopropyltrimethoxysilane in a fluidized bed of iron oxide showed a yield of 75% compared to 56% for a similar process without the iron oxide fluidized bed.

IT 23432-62-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (producing isocyanate-organosilanes in presence of fluidized solid particles)

RN 23432-62-4 HCAPLUS

CN Carbamic acid, N-[3-(trimethoxysilyl)propyl]-, methyl ester (CA INDEX NAME)



L16 ANSWER 4 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2005:298736 USPATFULL Full-text

TITLE: Polymers with urea groups and silyl groups and production and use thereof

INVENTOR(S): Bachon, Thomas, Duesseldorf, GERMANY, FEDERAL REPUBLIC OF
 Huebner, Wilfried, Langenfeld, GERMANY, FEDERAL REPUBLIC OF
 Kluth, Hermann, Duesseldorf, GERMANY, FEDERAL REPUBLIC OF
 Klauck, Wolfgang, Meersbusch, GERMANY, FEDERAL REPUBLIC OF
 Klein, Johann, Duesseldorf, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005260401	A1	20051124
	US 7057001	B2	20060606
APPLICATION INFO.:	US 2003-415185	A1	20011024 (10)
	WO 2001-EP12291		20011024
			20030425 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2000-10053545	20001027

DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: WOODCOCK WASHBURN LLP,, ONE LIBERTY PLACE, 46TH FLOOR,
 PHILADELPHIA, PA, 19103, US
 NUMBER OF CLAIMS: 17
 EXEMPLARY CLAIM: 1-20
 LINE COUNT: 1432
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for the production of compounds which contain at least one urea group and at least one silyl group. The process involves reacting a compound containing at least one amino group and a carbamate compound. The compounds produced by this process are useful as surface coating compositions, foams and adhesives.

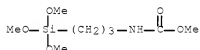
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 23432-62-4DF, polymers with dimer acid polyamides
 419572-67-1P 419572-68-2F 419572-69-3P
 420088-12-6P

(production and use of polymers with urea and silyl groups)

RN 23432-62-4 USPATFULL

CN Carbamic acid, N-[3-(trimethoxysilyl)propyl]-, methyl ester (CA INDEX NAME)



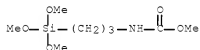
RN 419572-67-1 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with 1-octanamine (9CI) (CA INDEX NAME)

CM 1

CRN 23432-62-4

CMF C8 H19 N O5 Si



CM 2

CRN 111-86-4

CMF C8 H19 N



RN 419572-68-2 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ω -(2-aminomethylethoxy)poly[oxy(methyl-1,2-ethanediyl)]] (9CI) (CA INDEX NAME)

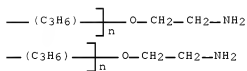
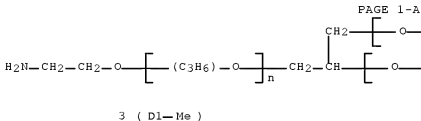
CM 1

CRN 64852-22-8

CMF (C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C12 H29 N3 O3

CCI IDS, PMS

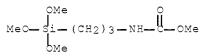
CDES *



CM 2

CRN 23432-62-4

CMF C8 H19 N O5 Si



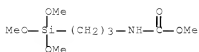
RN 419572-69-3 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with α -(2-aminomethylethyl)- ω -(2-aminomethylethoxy)poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 23432-62-4

CMF C8 H19 N O5 Si



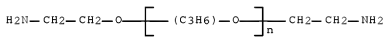
CM 2

CRN 9046-10-0

CMF (C3 H6 O)n C6 H16 N2 O

CCI IDS, PMS

CDES *



2 (D1-Me)

RN 420088-12-6 USPATFULL

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with
Macromelt TPX 22-405 (9CI) (CA INDEX NAME)

CM 1

CRN 420088-11-5

CMF Unspecified

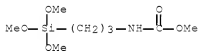
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

CM 2

CRN 23432-62-4

CMF C8 H19 N O5 Si



L16 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:798978 HCAPLUS Full-text

DOCUMENT NUMBER: 132:126367

TITLE: Composition-structure relations in organically
modified silica gels

AUTHOR(S): Husing, Nicola; Schubert, Ulrich

CORPORATE SOURCE: Institut für Anorganische Chemie, Technische

SOURCE: Universitat Wien, Vienna, A-1060, Austria
Materials Research Society Symposium Proceedings
(1999), 576 (Organic/Inorganic Hybrid Materials II),
117-127

CODEN: MRSPDH; ISSN: 0272-9172

PUBLISHER: Materials Research Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monolithic silica aerogels modified by functional org. groups were prepared by base-catalyzed sol-gel processing of $\text{Si}(\text{OR})_4/\text{R}'\text{Si}(\text{OMe})_3$ mixts. (R' = organofunctional group), followed by drying of the wet gels with supercrit. CO_2 . When the functional organic group has only weakly or no basic properties, the microstructure of the obtained aerogels is similar to that of an unmodified silica aerogel prepared under the same conditions and quite independent of the kind of functional group. The exptl. findings are explained by a two-stage process in which the $\text{R}'\text{Si}$ tpbond. units condense to a pre-formed gel network obtained by hydrolysis and condensation of $\text{Si}(\text{OR})_4$. An increasing portion of $\text{R}'\text{Si}(\text{OMe})_3$ has the same effects on the hydrolysis and condensation reactions as decreasing the bulk d. of an unmodified silica aerogel and the same structural consequences as increasing the water/silane ratio and the catalyst concentration acting on $\text{Si}(\text{OR})_4$. This leads to larger primary particles and, associated with that, smaller sp. surface areas. The two-stage process is not observed when R' contains a strongly basic substituent such as NH_2 or $\text{NHCH}_2\text{CH}_2\text{NH}_2$. The structural parameters indicate that in these cases both $\text{R}'\text{Si}(\text{OMe})_3$ and $\text{Si}(\text{OR})_4$ are involved in the build-up of the gel network. This can be explained by extensive hydrogen bonding between the amino groups and silanol groups.

IT 256342-59-3P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(ceramers; composition-structure relations in organically modified silica aerogels)

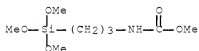
RN 256342-59-3 HCAPLUS

CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, methyl ester, polymer with silicic acid (H_4SiO_4) tetramethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 23432-62-4

CMF C8 H19 N O5 Si



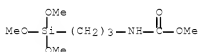
CM 2

CRN 681-84-5

CMF C4 H12 O4 Si



IT 23432-62-4
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (precursor; composition-structure relations in organically modified
 silica aerogels)
 RN 23432-62-4 HCAPLUS
 CN Carbamic acid, N-[3-(trimethoxysilyl)propyl]-, methyl ester (CA INDEX
 NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:505542 HCAPLUS Full-text

DOCUMENT NUMBER: 129:234338

TITLE: Formation and Structure of Porous Gel Networks from
 Si(OMe)₄ in the Presence of A(CH₂)_nSi(OR)₃ (A =
 Functional Group)

AUTHOR(S): Huesing, Nicola; Schubert, Ulrich; Misof, Klaus;
 Fratzl, Peter

CORPORATE SOURCE: Institut fuer Anorganische Chemie, Technische
 Universitaet Wien, Vienna, A-1060, Austria

SOURCE: Chemistry of Materials (1998), 10(10), 3024-3032
 CODEN: CMATEX; ISSN: 0897-4756

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monolithic silica aerogels modified by functional org. groups were prepared by sol-gel processing of Si(OMe)₄/A(CH₂)_nSi(OR)₃ mixts. under identical exptl. conditions, followed by drying of the wet gels with supercrit. CO₂. The employed functional groups A were SH (n = 3), OCH₂CHCH₂O (n = 3), OC(O)C(Me)=CH₂ (n = 3), NCO (n = 3), Cl (n = 3), NHC(O)OMe (n = 3), and PPh₂ (n = 2). These groups were retained in the aerogels except the isocyanate groups, which reacted with methanol to the corresponding carbamate. The properties of the obtained aerogels are rather independent of the kind of functional group, but strongly depend on the Si(OMe)₄/A(CH₂)_nSi(OR)₃ ratio, which was varied between 9:1 and 6:4. The d. of the aerogels was 0.2-0.3 g.cm⁻³; some aerogels with lower densities were also prepared for comparison. Gelling of the precursor mixts. is drastically slowed with an increasing portion of A(CH₂)_nSi(OR)₃, and the water consumption is retarded. During supercrit. drying, shrinkage of .apprx.10% was observed for the aerogels prepared from the 9:1 precursor mixts. Increasing the portion of A(CH₂)_nSi(OR)₃ or decreasing the aerogel d. lead to a larger shrinkage and an incomplete incorporation of the functional organic groups. The chemical composition of the resulting aerogels was investigated by IR and Raman

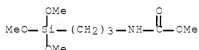
spectroscopy, elemental anal., and titration of the functional groups, and their structure by nitrogen sorption and small-angle X-ray scattering (SAXS). The Brunauer-Emmett-Teller (BET) surface areas generally decreased with an increasing portion of A(CH₂)_nSi(OR)₃, whereas the C parameter showed a saturation behavior. An anal. of the pore vols. indicated that with an increasing portion of A(CH₂)_nSi(OR)₃ or a decreasing bulk d., the gel skeleton is increasingly compressed during the N₂ sorption expts. SAXS measurements showed larger particles upon increasing the A(CH₂)_nSi(OR)₃/Si(OMe)₄ ratio, which correlates with the observed decrease of the sp. surface areas. The results were interpreted that an increasing portion of A(CH₂)_nSi(OR)₃ has the same kinetic effects on the hydrolysis and condensation reactions and the same structural consequences for the network formation as decreasing the bulk d. of an aerogel obtained from the one-component Si(OMe)₄ system. The fractal dimension increased with an increasing portion of A(CH₂)_nSi(OR)₃; it was significantly larger for A = NCO and NHC(O)OMe than for A = SH or OC(O)C(Me)CH₂.

IT 23432-62-4

RL: PEP (Physical, engineering or chemical process); PROC (Process)
(organic modifier; formation and structure of porous silica gel
networks from tetramethoxysilane in the presence of trialkoxysilanes)

RN 23432-62-4 HCAPLUS

CN Carbamic acid, N-[3-(trimethoxysilyl)propyl]-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1985:167740 HCAPLUS Full-text
DOCUMENT NUMBER: 102:167740
ORIGINAL REFERENCE NO.: 102:26393a,26396a
TITLE: Curable epoxy resin compositions
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 59197421	A	19841109	JP 1983-73195	19830426
JP 62048968	B	19871016		
PRIORITY APPLN. INFO.:			JP 1983-73195	19830426
GI				



I

AB Moisture-resistant potting compns. for elec. parts comprise a curable epoxy resin 100, an inorg. filler 100-500, and Q(ZR)m, R2(NR1CO)nOR3, or I (Q = H, m-valent organic group; Z = O, NR4; R = CONR1R5; R1 = Z1SiR6aR73-a; R2-R6 = H, monovalent organic group; R7 = OH, hydrolyzable group; Z1 = bivalent organic group; m, n = 1-5; a = 0-2) 0.05-10 parts. Thus, a composition comprising ECN-1280 [63992-68-7] (cresol novolak epoxy resin) 70, MP-120 [9003-35-4] (phenol novolak resin) 30, triphenylphosphine 2, carnauba wax 1, carbon black 1, silica powder 300, and H2NCONH(CH2)3Si(OMe)3 [23843-64-3] 1.5 parts had volume resistivity $2 + 1016 \Omega\text{-cm}$ ($5 + 1015 \Omega\text{-cm}$ after 200 h at 121° and 2.2 atm), flexural strength 15.0 (12.0) kg/cm2, and good stability, adhesion, and processability.

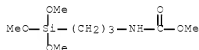
IT 23432-62-4

RL: USES (Uses)

(coupling agents, cresol novolak epoxy resin potting compns. containing)

RN 23432-62-4 HCAPLUS

CN Carbamic acid, N-[3-(trimethoxysilyl)propyl]-, methyl ester (CA INDEX NAME)



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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
46.99	620.10

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-4.00	-24.80

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 07:44:36 ON 14 MAR 2008